**FILIP RADENOVIĆ**

**E-mail**  [filipradenovic@fb.com](mailto:filipradenovic@fb.com) | **Webpage**  [cmp.felk.cvut.cz/~radenfil](http://cmp.felk.cvut.cz/~radenfil)

**Date of birth** 09 March 1990 | **Nationality** Montenegrin

**PROFESSIONAL EXPERIENCE**

**2019 Sep – Present: Research Scientist**

Facebook AI Applied Research,   
Facebook, Menlo Park, USA

**2018 May – 2018 Aug: Research Intern**

Facebook AI Applied Research,  
Facebook, Menlo Park, USA

**2013 Nov – 2019 Aug: Researcher**

Center for Machine Perception,   
Czech Technical University in Prague, Prague, Czechia

**2013 Jan – 2013 Oct: Research Intern**

Faculty of Electrical Engineering,   
University of Montenegro, Podgorica, Montenegro

**EDUCATION**

**2013 – 2019: PhD Computer Vision**

Visual Recognition Group, Center for Machine Perception, Faculty of Electrical Engineering, Czech Technical University, Prague

* Supervisor: Ondřej Chum
* Principal area of study: Large scale image retrieval with emphasis on significant scale and viewpoint changes; Representation learning for image retrieval and recognition

**2011 – 2013: MSc Computer Sciences**

Faculty of Electrical Engineering, University of Montenegro, Podgorica

* Thesis: Detection and reconstruction of rigid bodies after micro-Doppler removal in the radar imaging analysis; Supervisor: Vesna Popović-Bugarin
* Principal areas of study: Digital signal and image processing; Expert systems; Adaptive discrete systems; Databases and Information systems
* Average grade: 10.00 out of 10, the best student in the class

**2008 – 2011: BSc Electronics, Telecommunications and Computers**

Faculty of Electrical Engineering, University of Montenegro, Podgorica

* Principal areas of study: Programming; Computer engineering; Analogue and Digital electronics; Analogue and Digital telecommunications; Electromagnetics; Mathematics; Physics
* Average grade: 10.00 out of 10, the best student in the class

**SKILLS**

* **Computer skills:** Programming in MATLAB, Python, C(++), Android Development (Java)
* **Languages:** Fluent in English and Montenegrin/Serbian (native)

**HONORS AND AWARDS**

* **Dean's Award for Prestigious Thesis,** Faculty of Electrical Engineering, CTU in Prague **(2019)**
* **Outstanding Reviewer Honorable Mention,** British Machine Vision Conference **(2019)**
* **Outstanding Reviewer award,** Conference on Computer Vision and Pattern Recognition **(2019)**
* **Top 4% (11th/281) / 7% (9th/144)** in the [**Google Landmark Recognition / Retrieval**](https://landmarksworkshop.github.io/CVPRW2019/) **(2019)**
* **Top 1% (3rd/477) / 3% (6th/209)** in the [**Google Landmark Recognition / Retrieval**](https://landmarksworkshop.github.io/CVPRW2018/) **(2018)**
* **Best presentation award,** Computer Vision Winter Workshop (CVWW) **(2018)**
* **Best technical and natural sciences student plaque award,** University of Montenegro **(2012)**
* **Best science student award**, Montenegrin Academy of Sciences and Arts **(2010)**
* **Exceptional student capital city award**, Capital City Podgorica **(2010)**

**PROJECTS**

* **Large-Scale Image Retrieval Benchmarking:** [**Revisiting Oxford and Paris**](https://github.com/filipradenovic/revisitop) **(2018)**
  + Toolbox that provides support in downloading and using the new large-scale image retrieval benchmark containing more than million images.
* **CNN Image Retrieval –** [**MATLAB/MatConvNet**](https://github.com/filipradenovic/cnnimageretrieval)and[**Python/PyTorch**](https://github.com/filipradenovic/cnnimageretrieval-pytorch) **(2017/2018)**
  + Toolbox that implements the training and testing of the convolutional neural networks (CNN) for the task of image retrieval.

**INVITED TALKS**

* **Large Scale Image Retrieval,** Computer Vision course, FH Hagenberg **(2018)**
* **Image Retrieval Overview,** Machine Learning Meetups, Prague **(2017)**
* **Image Retrieval: From basics to recent advances,** Machine Learning Prague Workshop **(2017)**
* **Image Retrieval 2.0,** Pattern Recognition and Computer Vision Colloquium, Prague **(2015)**

**SELECTED PUBLICATIONS**

* **Radenović F.**, Tolias G., Chum O., **Fine-tuning CNN Image Retrieval with No Human Annotation**, TPAMI 2019
* Tolias G., **Radenović F.**, Chum O., **Targeted Mismatch Adversarial Attack: Query With a Flower to Retrieve the Tower,** ICCV 2019
* **Radenović F.**, Tolias G., Chum O., **Deep Shape Matching,** ECCV 2018
* Mishkin D., **Radenović F.**, Matas J., **Repeatability Is Not Enough: Learning Affine Regions via Discriminability,** ECCV 2018
* **Radenović F.**, Iscen A., Tolias G., Avrithis Y., Chum O., **Revisiting Oxford and Paris: Large-Scale Image Retrieval Benchmarking,** CVPR 2018
* Mishchuk A., Mishkin D., **Radenović F.**, Matas J., **Working hard to know your neighbor's margins: Local descriptor learning loss**, NIPS 2017
* **Radenović F.**, Tolias G., Chum O., **CNN Image Retrieval Learns from BoW: Unsupervised Fine-Tuning with Hard Examples**, ECCV 2016 **(oral)**
* **Radenović F.**, Schönberger J. L., Ji D., Frahm J., Chum O., Matas J., **From Dusk till Dawn: Modeling in the Dark**, CVPR 2016 **(spotlight)**
* **Radenović F.**, Jégou H., Chum O., **Multiple Measurements and Joint Dimensionality Reduction for Large Scale Image Search with Short Vectors**, ICMR 2015
* Schönberger J. L., **Radenović F.**, Chum O., Frahm J., **From Single Image Query to Detailed 3D Reconstruction**, CVPR 2015
* Reviewer for high-impact journals: **TPAMI, IJCV, CVIU, IEEE-SPL**
* Reviewer for conferences: **CVPR (2020, 2019), ICCV (2019), ECCV (2020), BMVC (2019), ICPR (2018)**